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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,952	11/10/2003	Shyh-Jong Chung	REAP0036USA	2951
27765	7590	12/17/2004	EXAMINER	
(NAIPC) NORTH AMERICA INTERNATIONAL PATENT OFFICE			LE, HOANGANH T	
P.O. BOX 506			ART UNIT	PAPER NUMBER
MERRIFIELD, VA 22116			2821	

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/605,952		CHUNG ET AL	
	<b>Examiner</b>		<b>Art Unit</b>	
	HoangAnh T Le		2821	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>11/10/03</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 2-5, 'the circuit board' has no antecedent basis.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1,3,4,5,7-9,11,12, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsuoka et al (the US Patent No. 6,008,773).

The Matsuoka et al reference teaches in figure 1 an antenna, comprising: a dielectric layer 2 having a first surface and a second surface which is spaced apart from and is substantially parallel to the first surface, a ground layer 4 of electrically

conductive material covering a portion of the first surface of the dielectric layer, a feed-line 5 of electrically conductive material disposed on the second surface of the dielectric layer, a first radiating element 3 of electrically conductive material disposed on the dielectric layer and electrically connected to the feed-line, wherein the first radiating element is for generating a first operating frequency of the antenna, and a second radiating element 6 of electrically conductive material disposed on the dielectric layer in close proximity to the first radiating element such that an electromagnetic energy can be transformed from the first radiating element to the second radiating element through energy coupling, wherein the second radiating element is for generating a second operating frequency of the antenna. The first and second radiating elements 3,6 are disposed on different surfaces of the circuit board. The first radiating element 6 is disposed on the second surface of the circuit board, and the second radiating element 3 is disposed on the first surface of the circuit board. At least a portion of the first radiating element disposed on the second surface of the printed circuit board is in close proximity to at least a portion of the second radiating element disposed on the first surface of the printed circuit board (figure 1). The second radiating element is a half-wavelength resonator (col. 4, line 29).

6. Claims 1,2,6,8,9,10, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Richard (the US Patent No. 6,002,369).

The Richard reference teaches in figure 3 an antenna, comprising: a dielectric layer 302 having a first surface and a second surface which is spaced apart from and is substantially parallel to the first surface, a ground layer 322 of electrically conductive

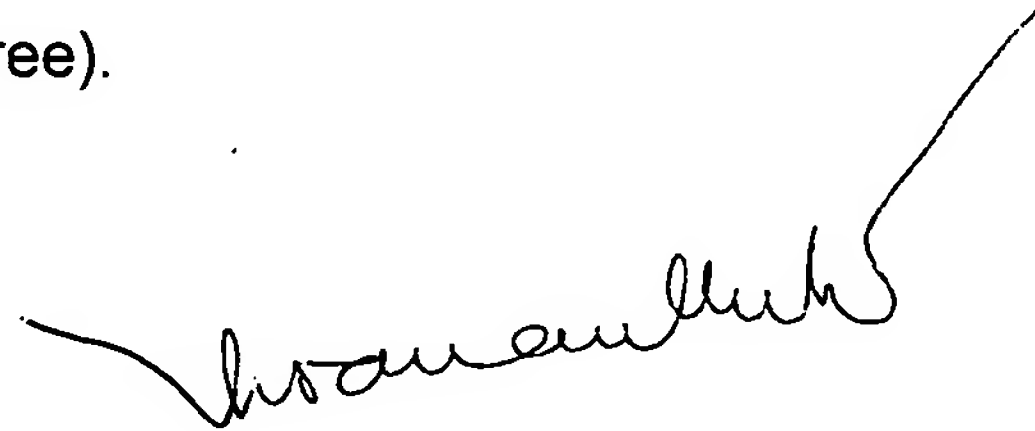
material covering a portion of the first surface of the dielectric layer, a feed-line of electrically conductive material disposed on the second surface of the dielectric layer (col. 2, line 37 and figure 2), a first radiating element 310 of electrically conductive material disposed on the dielectric layer and electrically connected to the feed-line, wherein the first radiating element is for generating a first operating frequency of the antenna', and a second radiating element 312 of electrically conductive material disposed on the dielectric layer in close proximity to the first radiating element such that an electromagnetic energy can be transformed from the first radiating element to the second radiating element through energy coupling, wherein the second radiating element is for generating a second operating frequency of the antenna. The first and second radiating elements are both disposed on a same surface of the circuit board (figure 3). The first radiating element is a monopole antenna (figure 3).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HoangAnh T Le whose telephone number is (571) 272-1823. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2821

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Hoanganh Le', with a long, sweeping horizontal line extending to the right.

**Hoanganh Le**  
**Primary Examiner**